Notes

5 May 2005
Clear Lake Nutrient TMDL
CEQA Scoping Meeting
Lakeport, CA

Attendees:
Bob Lossius, Lake County Department of Public Works
Peggie King, Lake County Special Disricts
Linda Juntunen, West Lake RCD
Frank Meisenbach, East Lake RCD
Jim Rains, CDFA
Frank Zarate, CDFA
Bob Faust, Mendocino National Forest
Chuck March, Lake County Farm Bureau
Ivan Karnez, Caltrans
Gary Lewis, Lake County Board of Supervisors
Greg Dills, East Lake and Westlake RCD
Pamela Francis, Lake County Department of Public Works
Cheri Holden, Sierra Club Lake Group
Tom Smythe, Lake County Department of Public Works

The following questions and comments came up during the CEQA Scoping meeting for the Clear Lake Nutrient TMDL. The slide numbers refer to the powerpoint presentation which is available on the Regional Board's website by clicking on the "Clear Lake Nutrient TMDL" link at the following location:
http://www.waterboards.ca.gov/centralvalley/programs/tmdl/

Slide 11: Ivan asked a question if there was a "peak" for every year. Tom confirmed that the "peak" tended to be in March/April when the clarity was at a maximum. The Summer and Fall is when the clarity is at a minimum.

Slide 12: Ivan asked a question about the phosphorus being in the sediments and wanted confirmation that runoff that did not have sediments also will not have phosphorus. <Lori agreed and noted that the phosphorus in the lake would eventually drain through Cache Creek.> Then Gary asked whether the graph was calculated or actual data. <Lori said it was calculated but calibrated with real data.>

Slide 14: Ivan asked what the peaks represented. <Lori said that the largest peaks occurred during the non-compliant years and the smaller peaks occurred during the compliant years.> Cheri asked what the chlorophyll represented, whether it was only the algae and what about the aquatic plants. <Lori said it was the blue-green algae and the model doesn't account for the aquatic plants. Bob F. asked what is the meaning of the 73 and whether the chlorophyll was producing the algae. <Lori said that, based on the

model, there is no anticipated algae problem if the chlorophyll is less than 73.> Jim noted that chlorophyll represents the algae and is not a cause of the algae and asked why the chlorophyll was the target and didn't this need to be verified with real data. Pam asked what the Secchi Disk measurements would be if the chlorophyll was measured right now and was found to be at 73.

Slide 16: Ivan asked whether the data came from the model. <Lori agreed that the load estimations came from the model.> Gary noted that it was interesting that the intermediates are not required to produce more reductions when they're the majority of the load. <Lori responded that the load reductions were based on potential for improvement in the various watersheds and they took into account projects such as the Middle Creek marsh project> Ivan asked if the model considered the impacts of future development. <Lori said it did not but it could.> Bob L. asked whether the county could have the model so that they can run it to see the resulting impacts. <Lori responded that the model is available for the county to use>

Slide 19: Cheri asked if there was a possibility of building a model based on real data. Gary noted that it would be better if the 73 was a moving target. Pam noted that Clear Lake was a naturally eutrophic lake and asked whether the 73 had been compared to other eutrophic lakes. <Lori said that G. Fred Lee had commented that 73 was very high.> Peggy noted that the TMDL was not due until 2011 so we should wait until we get some data to see how good the model was. <Lori said the time schedule has changed for Clear Lake nutrients.> Ivan said the graphs show that the best clarity had been around 6 meters and wanted to know if 10 meters was out of the question. Bob L. asked whether the basin plan amendment would include a requirement for the county to monitor (noting that the mercury TMDL included a requirement that the state with the federal agencies develop a monitoring plan for the next 5 to 10 years) and would the basin plan amendment note that the chlorophyll target is based on limited data. Bob also noted that the 303(d) listing was based on pre-1990 data and things have improved since then. Finally, Bob wanted to know how flexible the basin plan requirements would be in regards to the 73 which he does not want to see in the stormwater permits. Cheri asked for the basis for the statement that the phosphorus loads are coming from the sediments. Bob L. said that the world-renowned understanding is that phosphorus comes from sediments. In addition the county has its own data. 40% of the streams are gaged. (Side bar: Scotts Creek sediment data is actually well upstream of the mouth. There is a problem with funding gaging stations. The county can get grants to install them but there aren't any grants available for the maintenance and operation of the gaging stations. Tom noted that they have two-year snap shots but experts like Goldman recommend ten years. Bob F. asked whether the load reductions by watershed were based on suspended sediment values and if so what about the phosphorus content of the sediments. Tom said that the county's samples are routinely analyzed for ortho-phosphorus, total phosphorus and suspended solids. The results show a consistent correlation between total phosphorus and suspended solids. [He couldn't remember whether it was one-hundredth or one-tenth of one percent of the total suspended solids was total phosphorus.] Jim asked whether there was a correlation between chlorophyll and phosphorus. Ivan asked why the phosphorus was chosen as the loads to reduce. Tom said that the county was concerned

over use of phosphorus load reductions in order to improve clarity. Summary of above discussion: The group accepts the chlorophyll target as long as there is flexibility to change it as more data is gathered, but the group would prefer a more measurable target. [Betty comment: County prefers the first part, Cheri prefers the second part of the summary.]

Ivan noted that Caltrans is tracking a list of TMDLs and notes that many combine nutrients and sediments so should this be done at Clear Lake? Ivan noted that Caltrans experience has been that they will implement practices that are favorable towards one TMDL then find that the project has detrimental effects on a later TMDL.

Bob F. asked why is there a chlorophyll target when the loads are sediments?

Slide 20: Gary noted that there is very little timber occurring in the county but there are a lot of roads in USFS and BLM lands. Also, there are controlled burns and wildfires in the federal lands. Ivan asked whether timber was a source of phosphorus, and roads don't generate phosphorus although they can direct runoff into ditches and culverts that carry sediments. Ivan also asked about the impact of grazing. <Lori answered that the activity caused land disturbances and the land was high in phosphorus so that's why we want to reduce erosion. The studies show that sewer plant overflows and septic tanks are not a large source of nutrients to Clear Lake. Phosphorus, which is bound to sediments, that is the problem.> Gary asked why was the RB picking on vineyards and not agriculture in general. For example, walnut orchards are plowed every year causing a lot of loose soils. <Lori responded that this was not a comprehensive list of impacts> Ivan noted that Caltrans experience with bioswales has been very effective and is now including bioswales on all new projects. However, Caltrans can't retrofit all their roads and wants to work with the Boards on what should be done. Jim noted that the biggest problem appears to be fertilizer use in residences <Lori agreed to look into this.> Chuck noted that they are now conducting toxicity tests as they start the Phase 2 monitoring required under the Ag Waiver and they have found no toxicity. Gary noted that there is a problem with off-road vehicle use. Cheri said that residences and schools need to be involved in the implementation plan. Greg noted the erosion problems caused by illegal off-road vehicle use. The audience commented that there is also legal off-road vehicle usage in federal lands. Another watershed group has formed to address this issue. Gary said that the county has found an ordinance condition that they might use to address the illegal off-roading.

Slide 21: Chuck thought that there were potentially economic impacts to agriculture if BMP implementation was required. Ivan thought that there could be positive impacts to air quality if dust control requirements are part of the erosion control measures. Bob F. spoke for the audience that they expected improved biological resources. Gary noted that there might be impacts to cultural resources if Native American lands are included (and he noted that the county enjoyed a cooperative relationships with the tribes in the County). Jim and Cheri thought that there should be improvements in soils and geology. Cheri spoke for the audience when she said N/A to Hazardous Materials. Gary, Ivan and Tom thought that there should be improvements to water quality. Ivan noted that there is

a correlation between sediments and hydrology in the form of slope control and the large cost involved when trying not to disrupt the local hydrology while implementing sediment control. Ivan also noted potential for chain reactions both upstream and downstream of project areas. Ivan also noted a need for Caltrans/County to have an agreement to look at all the projects that they plan on implementing to see what the combined effect will be rather than looking at them individually and risk some opposing effects. Frank said that there could be land use impacts by specifying types of activity that could be prohibited such as horse trails in the creek bed. Jim thought that there would be land use impacts in the forms on restrictions such as grading ordinances (affecting development and agriculture), road standards and fertilizer use. Tom noted that there might be mineral resource impacts because they have mining operations for gravel extraction (one in-stream operation that was grandfathered on Scotts Creek, rest are terracing) and 2 to 3 hard rock mines. Everyone agreed that there are no anticipated noise impacts. Gary, Cheri and Tom thought that there could be an impact on the cost of housing. [A side bar discussion began about how the county is looking at some huge development proposals. There are a lot of absentee landowners and a lot of commuting through Napa. Cheri noted Victoria Gardens by the K-mart as an example. The audience talked among themselves regarding concern over implementation of Phase 2 permits. Bob L. said that the County is evaluating the grading ordinances to see if they are in compliance with the Stormwater Permits. Ivan pointed out that new developments will be taken care of by requiring the developers to install BMPs. Gary said that maintenance is a problem and they would have to charge a fee to provide maintenance and possibly form a stormwater district. County staff agreed that education and outreach are needed to make everyone aware of what is required and that this will be slow-going.] In regards to Public Services, Tom said that there will be additional costs to the County to provide stormwater BMP maintenance and to improve county roads. For example, Caltrans is now putting in bioswales and the county can't afford that. Tom noted that recreation impacts would be to the off-road vehicle usage. Cheri expected a recreational impact to be improvements in the developed wildlands. Bob F. said transportation impacts should be the cost of reducing sedimentation from roads. For Utilties, Tom said that there is a cost to construct stormwater treatment facilities.

Bob F. was concerned regarding combining Middle and Scotts Creek watersheds to identify the load reduction. Bob L. said that the two watersheds were more similar than not - they both had Federal lands in their upper watersheds, agriculture in the middle, then the two creeks converge and enter the lake together. Bob thought that it was fine to combine them. Bob F. then thought that the federal lands should be split off since different activities occurred on those lands such as prescribed burns and off-roading. Betty noted the implementation program developed by Lori could identify different expectations based on activity and recommendations regarding what should be done with the different activities are appropriate comments to Lori. Bob said that the mercury TMDL required consolidated monitoring between the federal agencies and the county and there should be something similar in the nutrient TMDL. Then Bob wondered about the Regional Board's jurisdiction over the federal agencies. <Lori agreed to check on this.> Tom asked whether the Tetra Tech report was on the website. <Lori's next slide contained this information.> Peggy wanted it noted that an additional sewer service

impact was to areas with septic receiving stations. Cheri asked what were the next steps and wondered about inputs to lakes of other constituents impacting nutrient loads such as herbicides impacting vegetation (she was tracking the Aquatic Weed Program) since it seems that use of herbicides inside the lake will have an impact. <Lori agreed to look into this.>